

FIG. 1A

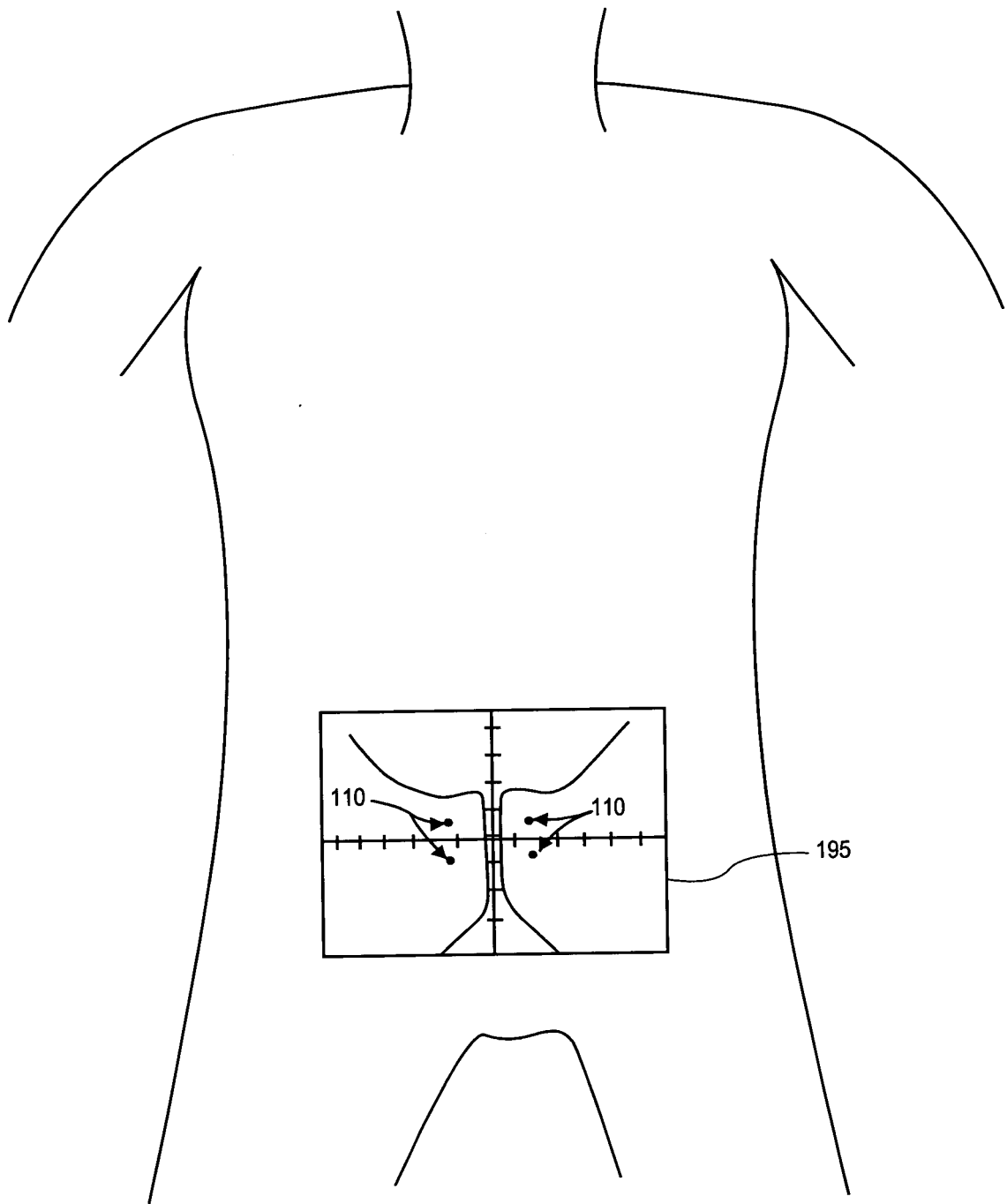


FIG. 1B

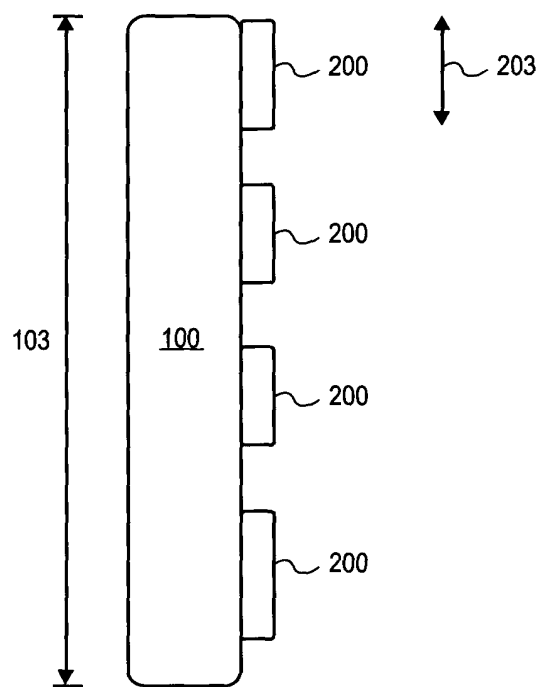


FIG. 2A

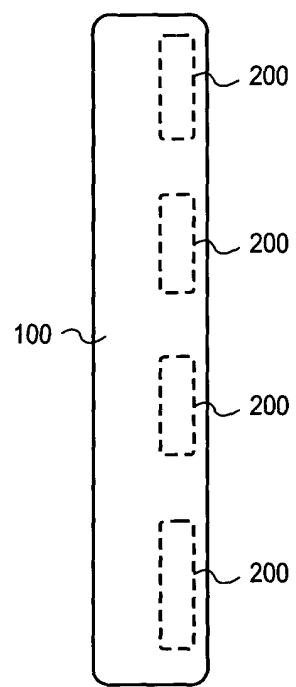


FIG. 2B

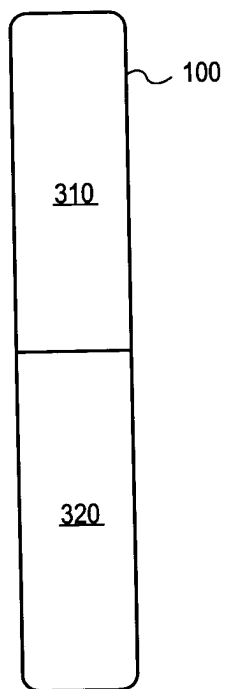


FIG. 3

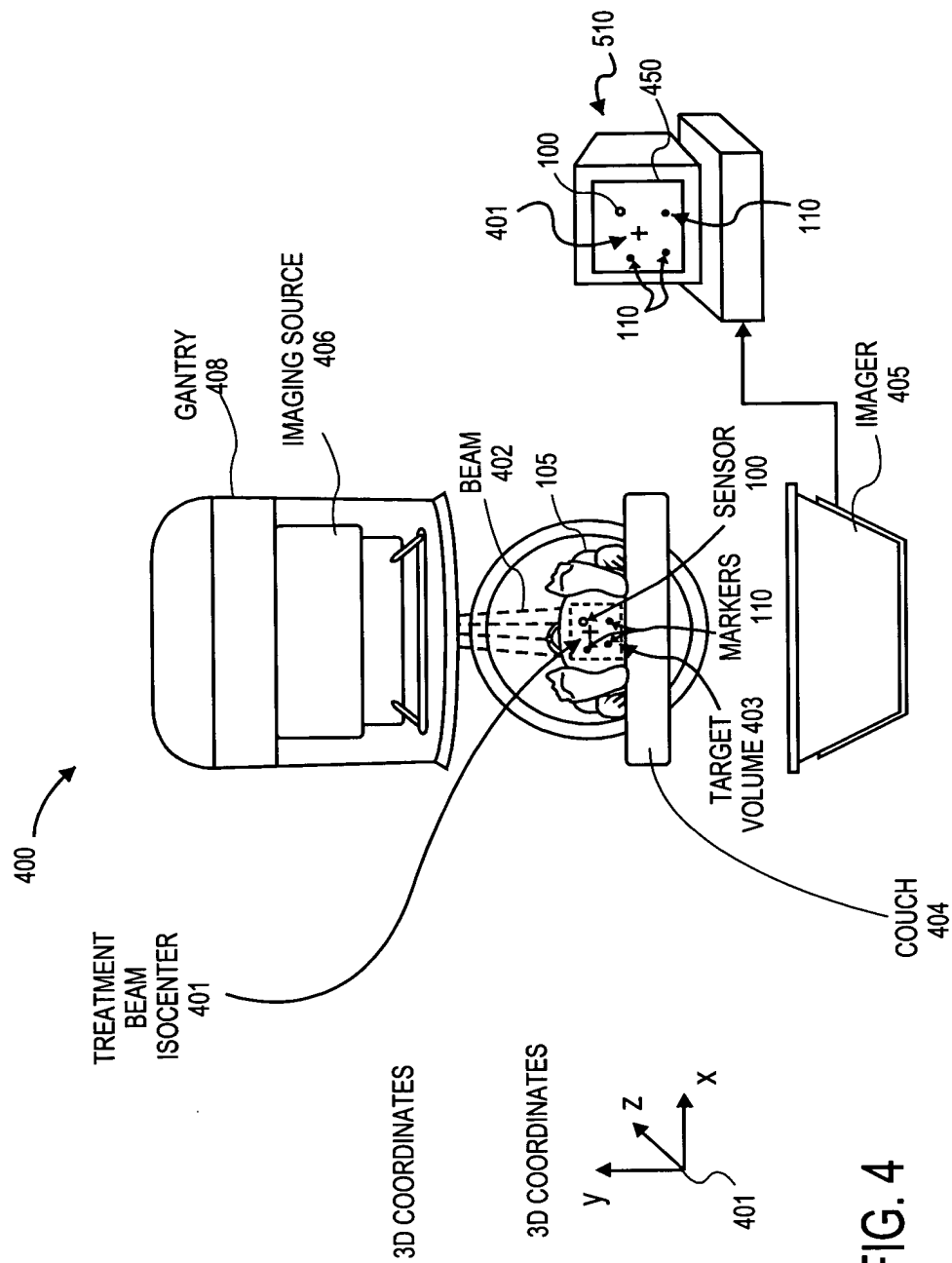


FIG. 4

DIGITAL PROCESSING SYSTEM 510

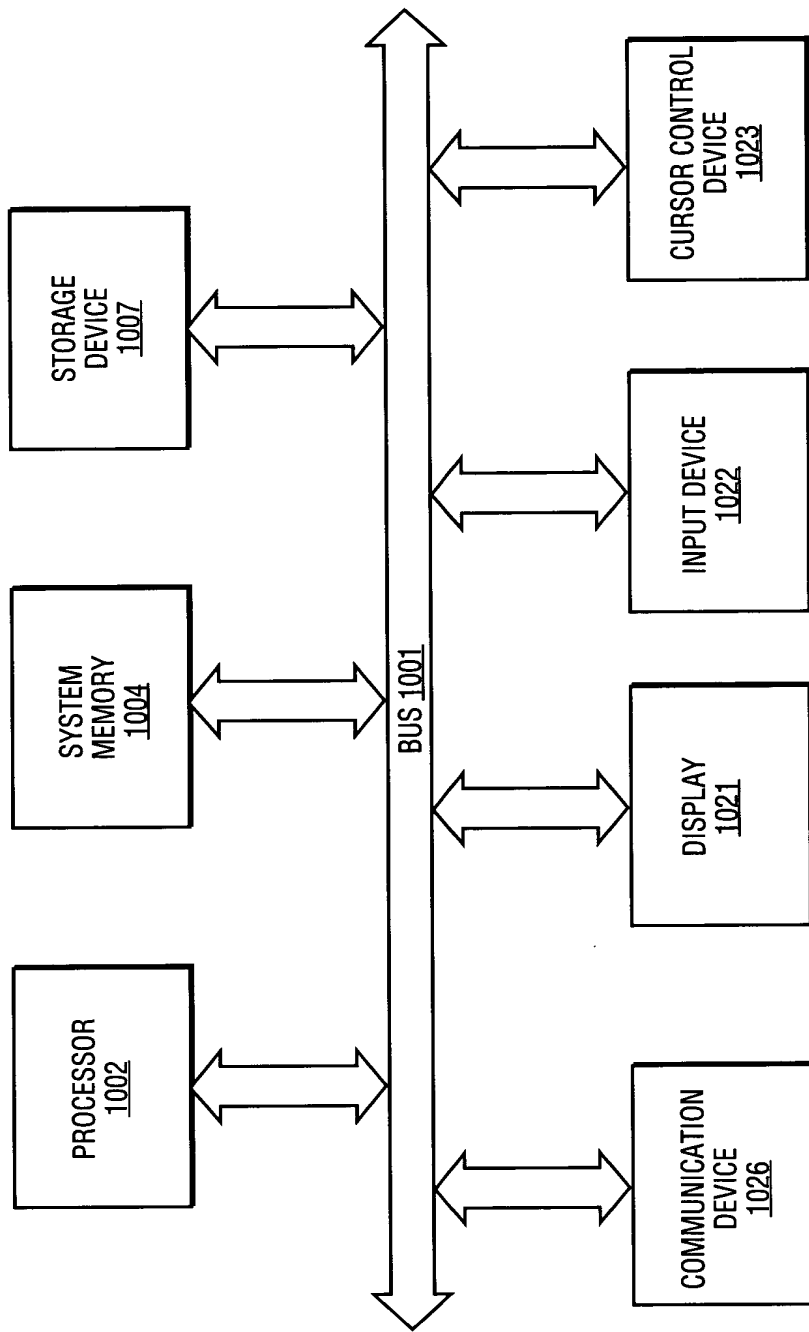


FIG. 5

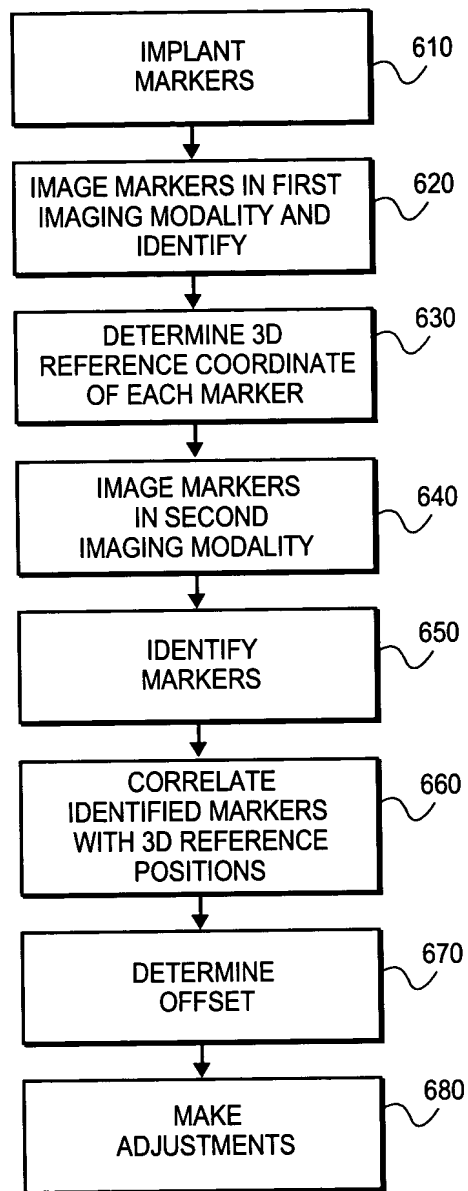


FIG. 6

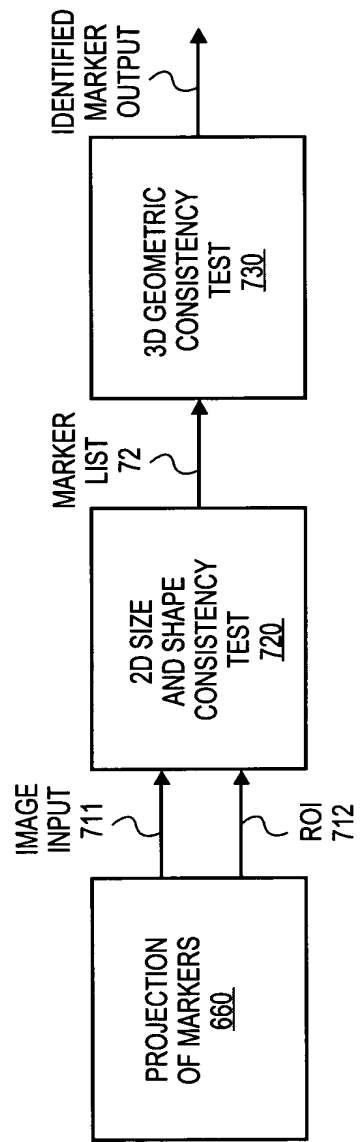


FIG. 7

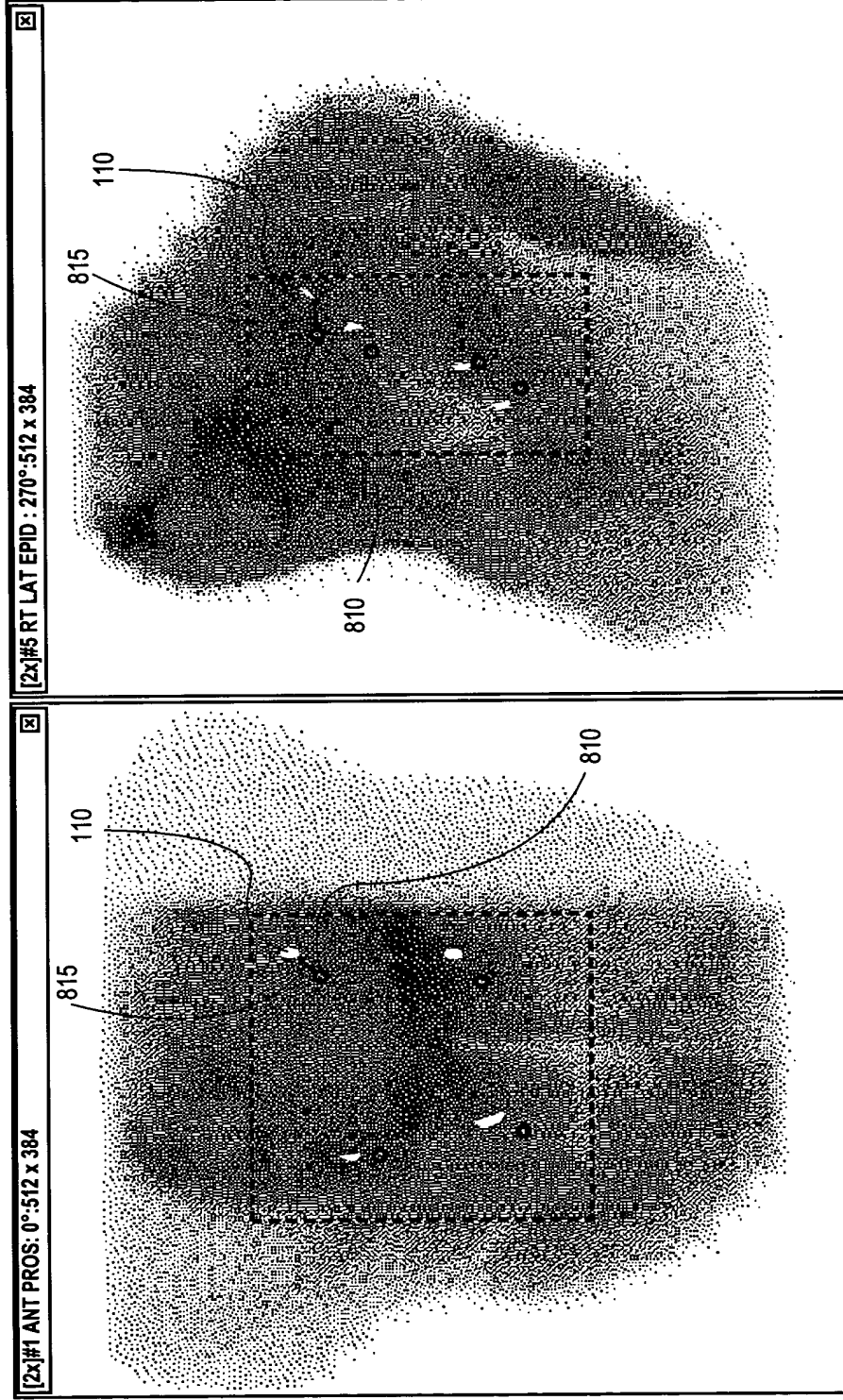


FIG. 8A

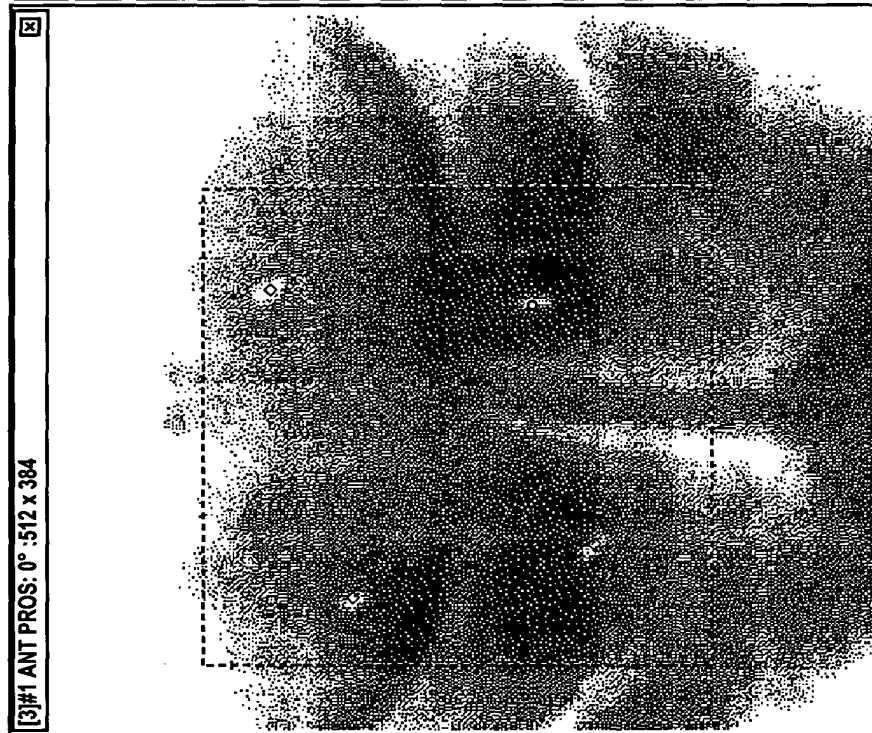


IMAGE A

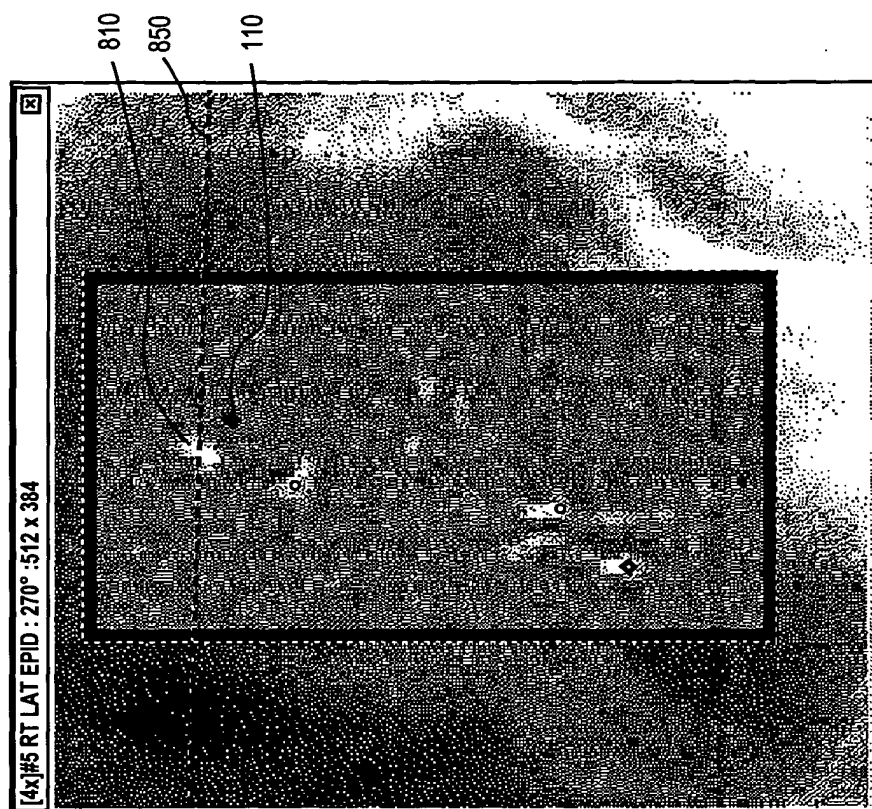


IMAGE B

FIG. 8B

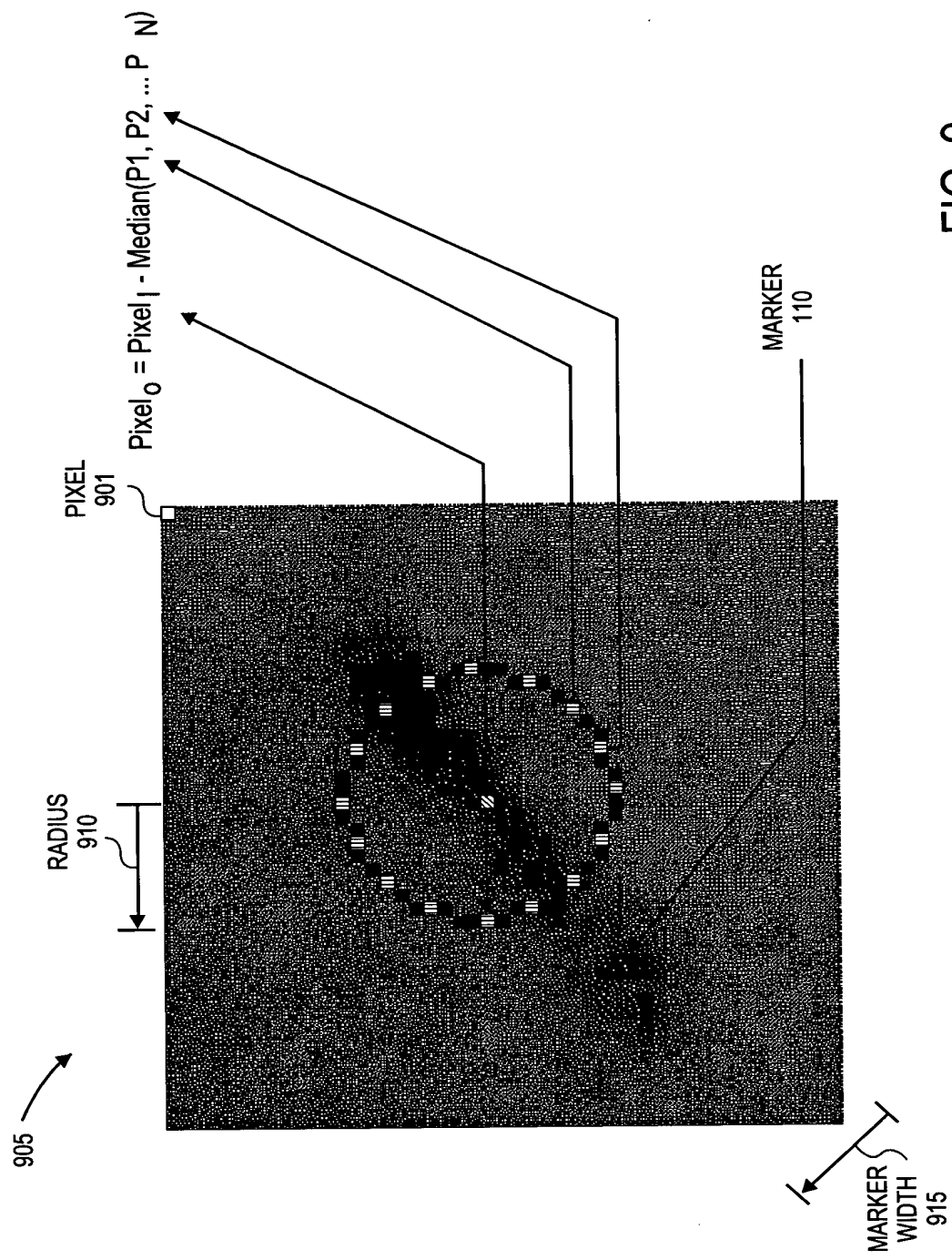


FIG. 9

IMAGE
REGION
WITH
SEED

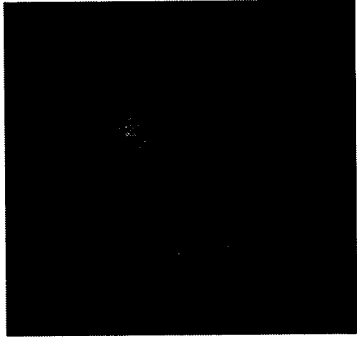


FIG. 10A



FIG. 11A



FIG. 12A

IMAGE
REGION
WITH
NOISE

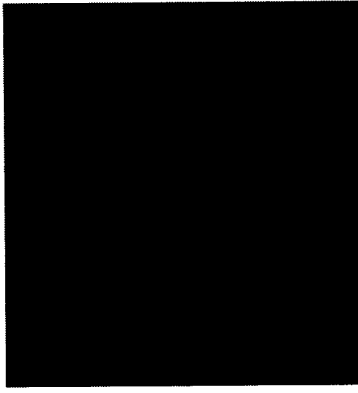


FIG. 10B



FIG. 11B



FIG. 12B

Rigid or deformable target <u>1310</u>	Number of visible implanted markers <u>1320</u>	Number of positioning images in each treatment session <u>1330</u>	Adjustments that can be estimated <u>1340</u>
Rigid	Three or more	Two or more from different angles suitable for triangulation	For each treatment field: patient position/orientation, MLC position/rotation
Deformable	Three or more	Two or more from different angles suitable for triangulation	For each treatment field: patient position/orientation, MLC position/rotation, MLC shape; the accuracy of MLC shape calculation depends on the number of markers and the spread of them in the target volume
Rigid	Three or more	One - (preferably from the direction that markers are most visible)	For all treatment fields: patients position/orientation; MLC position/rotation
Deformable	Three or more	One - from the same angle as the treatment field	For that treatment field: patient position/orientation; MLC position/rotation, MLC shape
Deformable	Two	One - from the same angle as the treatment field	For all treatment fields: patients position/orientation; MLC position/rotation
Rigid	One	One - from the same angle as the treatment field	For that treatment field: patient/MLC position

FIG. 13

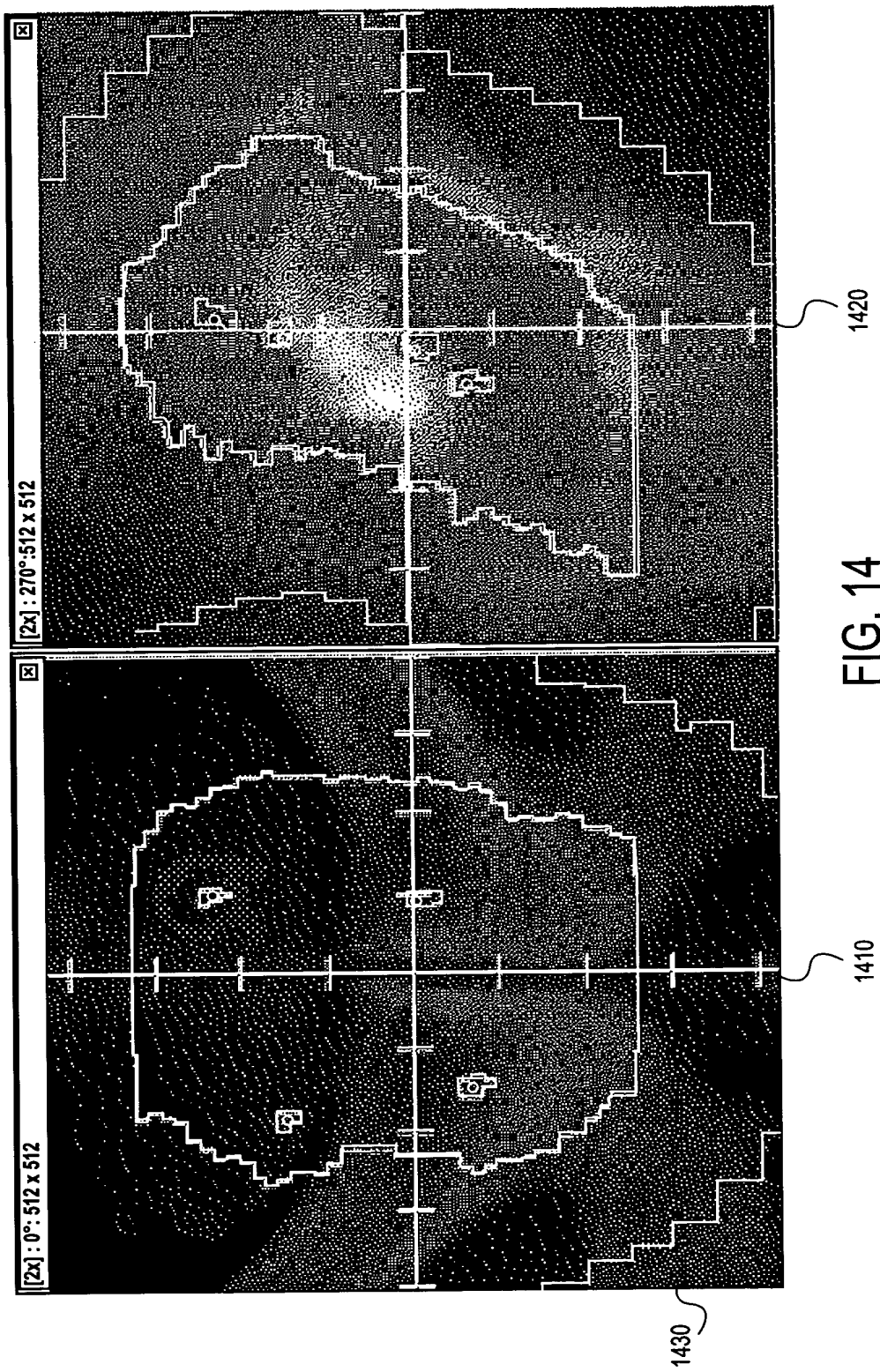


FIG. 14

Register Reference Markers

Reference Markers

Marker coordinates relative to the isocenter.

Marker	x (cm)	y (cm)	z (cm)
1	-2.29	+1.03	+0.16
2	-1.45	-1.81	-0.09
3	+0.08	+0.96	-0.26
3	+0.70	-1.44	-0.67

X - Value increases when moving away from gantry
Y - Values increase to left when viewing from gantry
Z - Values increase when moving down

Save

Cancel

FIG. 15